

To: Card, Joan[Card.Joan@epa.gov]
Cc: Fritz, Matthew[Fritz.Matthew@epa.gov]; McGrath, Shaun[McGrath.Shaun@epa.gov]; Blumenfeld, Jared[BLUMENFELD.JARED@EPA.GOV]; Curry, Ron[Curry.Ron@epa.gov]; Zito, Kelly[ZITO.KELLY@EPA.GOV]; Harrison, Melissa[Harrison.Melissa@epa.gov]; Ostrander, David[Ostrander.David@epa.gov]
From: Gray, David
Sent: Wed 8/12/2015 3:08:04 PM
Subject: BOR release

Talked to BOR and they have resumed normal flow from the reservoir now that the spill has passed the convergence with San Juan River.

Sent from my iPhone

On Aug 12, 2015, at 8:55 AM, Card, Joan <Card.Joan@epa.gov> wrote:

See highlight below re: BOR work on assessing releases.

From: Ludwigsen, Emily
Sent: Wednesday, August 12, 2015 8:49 AM
Subject: RE: CO Mine Spill Clips - 8/12

ABC News

<http://abcnews.go.com/WNT/video/state-emergency-colorado-toxic-river-heading-grand-canyon-33001311>

State of Emergency in Colorado Over Toxic River Heading Toward the Grand Canyon (Video)

August 12

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Associated Press (via AOL)

<http://www.aol.com/article/2015/08/11/navajo-president-epa-says-spill-cleanup-could-take-decades/21221413/>

Navajo president: EPA says spill cleanup could take decades

Susan Montoya Bryan and Ellen Kickmeyer

August 11, 6:29PM

ALBUQUERQUE, N.M. (AP) — Townspeople affected by the millions of gallons of waste spilled from an abandoned gold mine and now flowing through their communities demanded clarity Tuesday about any long-term threats to their water supply.

Colorado and New Mexico made disaster declarations for stretches of the Animas and San Juan rivers and the Navajo Nation declared an emergency as the waste spread more than 100 miles downstream, where it will reach Lake Powell in Utah sometime this week.

EPA workers accidentally unleashed an estimated 3 million gallons of orange-yellow waste, including high concentrations of arsenic, lead and other potentially toxic heavy metals, while inspecting the long-abandoned Gold King mine near Silverton, Colorado, on Aug. 5.

EPA Administrator Gina McCarthy, who plans to tour the damage personally, said Tuesday in Washington, D.C., that she takes full responsibility for the spill, which she said "pains me to no end." She said the agency is working around the clock to assess the environmental impact.

EPA officials said the shockingly bright plume has already dissipated and that the leading edge of the contamination cannot be seen in the downstream stretches of the San Juan River or Lake Powell.

So far, the Bureau of Reclamation has no plans to slow flows on the lower Colorado River, below Lake Powell, where the water is a vital resource for parts of California, Arizona, Nevada, New Mexico and Utah.

Chris Watt, a bureau spokesman in Salt Lake City, said his agency is testing the water at the request of the EPA, and can't discuss the impact without learning the results.

None of this has eased concerns or quelled anger among people in the arid Southwest who depend on this water for their survival.

The Navajos, whose sovereign nation covers parts of New Mexico, Utah and Arizona, shut down water intake systems and stopped diverting water from the San Juan River. Navajo Nation President Russell Begaye told The Associated Press that regional EPA officials told him the cleanup could take decades.

"Decades. That is totally, completely unsettling," Begaye said. "This is a huge issue. This river, the San Juan, is our lifeline, not only in a spiritual sense but also it's an economic base that sustains the people that live along the river. You're taking away the livelihood and maybe taking it away from them for decades. ... That is just, to me, a disaster of a huge proportion. And we have yet to hear from the Obama administration."

Heavy metals from Gold King and other defunct mines in Colorado have been leaching out and killing fish and other species for decades as rain and snowmelt spills from mining operations left abandoned and exposed. The EPA has considered making part of the Animas River in Colorado a Superfund site for a quarter-century.

It would have provided more resources for a cleanup, but some in Colorado opposed Superfund status, fearing the stigma and the federal strings attached, so the EPA agreed to allow local officials to lead cleanup efforts instead.

Now the Attorneys General of Utah, New Mexico and Colorado are coordinating a response to ensure "whatever remediation is necessary occurs as quickly as possible," Utah Attorney General Sean Reyes said in a statement.

Utah Gov. Gary Herbert expressed disappointment with the EPA's initial handling of the spill, but said the state has no plans for legal action. New Mexico Gov. Susana Martinez, however, said she would not take anything off the table and that the EPA should be held to the same standards as industry.

"Right now we have people preparing for a lawsuit if that is what we need to do," she said Tuesday.

Colorado Gov. John Hickenlooper, himself a former geologist, visited a contaminated stretch of river Tuesday and said he hopes a "silver lining" to the disaster will be a more aggressive state and federal effort to deal with mining's "legacy of pollution" across the West.

The EPA has said the current flows too fast for the contaminants to pose an immediate health threat, and that the heavy metals will likely be diluted over time so that they don't pose a longer-term threat, either.

Still, as a precautionary measure, the agency said stretches of the rivers would be closed for drinking water, recreation and other uses at least through Aug. 17.

Dissolved iron is what turned the waste plume an alarming orange-yellow, a color familiar to old-time miners who call it "yellow boy."

"The water appears worse aesthetically than it actually is, in terms of health," said Ron Cohen, a civil and environmental engineering professor at the Colorado School of Mines.

Tests show some of the metals have settled to the bottom and would dissolve only if conditions became acidic, which Cohen said isn't likely. He advises leaving the metals where they settle, and counting on next spring's mountain snowmelt to dilute them more and flush them downstream.

No die-off of wildlife along the river has been detected. Federal officials say all but one of a test batch of fingerling trout deliberately exposed to the water survived over the weekend.

As a precaution, state and federal officials ordered public water systems to turn off intake valves as the plume passes. Boaters and fishing groups have been told to avoid affected stretches of the Animas and San Juan rivers, which are usually crowded with rafters and anglers in a normal summer.

Farmers also have been forced to stop irrigating, endangering their crops, and recreational businesses report losing thousands of dollars.

"We had lots of trips booked. Right now we're just canceling by the day," said Drew Beezley, co-owner of 4 Corners Whitewater in Durango, Colorado. He said his dozen employees are out of work, and he's lost about \$10,000 in business since the spill.

"We don't really know what the future holds yet," said Beezley. "We don't know if the rest of this season is just scrapped."

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Bustle

<http://www.bustle.com/articles/103558-photos-of-the-animas-river-spill-show-a-dangerously-toxic-orange-body-of-water-photos>

Photos Of The Animas River Spill Show A Dangerously Toxic Orange Body Of Water —

PHOTOS

Greta Jochem

August 11, 6PM

The Animas river in Colorado is channeling its inner Donald Trump today ... as in, it's dyed orange.

According to ABC News, three million gallons of toxic waste water was accidentally released into the river by a group of EPA workers. The spill occurred on August 5 in Silverton, Colorado — an area in the southwestern part of the state — and photos show a devastating sight. "Everybody in town knew it was coming. It was hard to wake up in the morning and see an orange river," Tom Bartles of Durango, Colorado told CNN.

The orange color is more than just eye-catching — it's potentially dangerous. According to CNN, officials said that the spill carries pollutants like iron, zinc, and copper. For example, on Thursday, the EPA found that the river's arsenic concentration was 26 times higher than what they consider a safe amount. Lead levels are reportedly 12,000 times higher than the recommended limit.

How did this happen? Colorado Public Radio explains that the EPA was trying to clean waste from an old mine by building a drain pipe. Their plan backfired when they dug into the dam holding back the water and found that it was made of soil instead of rock. The water then flowed out, contaminating the river. The EPA's director of emergency preparedness in the region, Dave Ostrander, said, "We typically respond to emergencies, we don't cause them. But this is just something that happens when we're dealing with mines sometimes."

Here's a sad look at what the Animas River looks like right now.

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USA Today

<http://www.usatoday.com/story/news/2015/08/11/epa-targeted-lawsuits-wake-toxic-spill-river-colorado/31489461/>

EPA targeted for lawsuits in wake of toxic spill in river in Colorado

Rick Jervis

August 11, 7:15PM

Victims of the contamination of the Animas River in Colorado could take the Environmental Protection Agency to court to seek damages, but it could be a long, tough legal battle that may not pay off at the end, according to environmental law experts.

The spill of an estimated 3 million gallons of toxic wastewater into the river by a team of EPA contractors has infuriated residents and local officials who live along the winding 126-mile-long waterway and spurred some to threaten lawsuits. The head of the Navajo Nation, Russell Begaye, downriver from the spill, directed his legal team to file a lawsuit against the EPA.

Unlike the U.S. president, the EPA is not immune to lawsuits, said Kevin Mayer, a Washington-based environmental lawyer. Typically, individuals or local governments sue the EPA over the rules it sets for environmental protection, he said. In this case, it could be sued for something it actually did, Mayer said.

"The question is: Did the EPA act negligently?" he said. "Did it do something or fail to do something that a prudent person would have done in this circumstance?"

Lawsuits against the EPA are not uncommon. Texas has sued the EPA 21 times since President Obama took office in 2009, but has only won six of those cases, according to an analysis by the Texas Tribune. More than a dozen coal-reliant states have also filed recent lawsuits against the EPA in an effort to block proposed rules designed to cut greenhouse gases.

The Colorado case, however, has a more direct link to the federal agency. The spill occurred Friday when an EPA team disturbed a dam of loose rock lodged in the mine, sending a plume of mustard-colored water rushing out of the Gold King Mine and south through Colorado and into New Mexico.

An EPA spokesman said the agency wouldn't comment about pending lawsuits. The agency has set up a claims process to compensate residents affected by the spill.

Colorado Gov. John Hickenlooper on Tuesday toured the impacted areas of the river and said much of the wastewater had been plugged up, but urged the EPA to speed up work to identify the most dangerous areas and clean them up.

Officials with the New Mexico Environment Department said they're focused on testing the water for pollutants rather than pointing fingers. "Until we can advise New Mexicans that our water and the Animas River is safe once again, we continue focusing on fixing the problem, not the blame game," department spokeswoman Allison Majure said in a statement. "Ultimately, we will ensure that New Mexico is fairly compensated for the activities associated with EPA's Gold King Mine spill."

Some state officials in the impacted areas have criticized the EPA for waiting 24 hours before notifying state agencies of the spill, an issue that could bode well for plaintiffs in court, Mayer said.

But exemptions written into some U.S. environmental laws, such as the Clean Water Act and the Oil Pollution Act, protect the EPA and other federal agencies from liability during hazardous waste spills, said Bob Irvin, an environmental attorney and president of American Rivers, a national non-profit river conservation group.

Federal lawyers could also tie up lawsuits for years, much the way lawsuits against the federal government after the levees failed in the wake of Hurricane Katrina in 2005 were stalled, he said. Two years ago, a U.S. district judge dismissed the bulk of the Katrina lawsuits.

"These things take forever," Irvin said. "You're probably a lot better off getting your claim resolved through the claims process the EPA has established,"

From: Ludwigsen, Emily
Sent: Wednesday, August 12, 2015 10:16 AM
Subject: RE: CO Mine Spill Clips - 8/12

Al Jazeera America

<http://america.aljazeera.com/articles/2015/8/12/toxic-spill-leaves-navajo-farmers-in-murky-water.html>

Navajo Nation declares state of emergency over 'tragic' spill

Tristan Ahtone
August 12, 5AM

NAVAJO NATION — Farmers and ranchers on the Navajo Nation are preparing to take heavy losses this season as a plume of wastewater laced with toxic chemicals flows south from an abandoned mine in Colorado.

Last week, the Environmental Protection Agency spilled around three-million gallons of contaminated water into the Animas River. According to the EPA, the incident occurred when a crew hired to pump and treat wastewater inside the abandoned Gold King Mine outside of Durango, Colorado, accidentally released a brew of arsenic, cadmium, lead and other heavy metals from a mine tunnel.

As a precautionary measure, the Navajo Nation has asked citizens to keep livestock away from the San Juan River and stop diverting water from the river for crops. That means farmers like Lorenzo Bates are beginning to plan for the worst.

"What is in the water? To what extent are those heavy metals?" said Bates, speaker of the Navajo Nation Council and farmer from Upper Fruitland, New Mexico.

Without access to water from the San Juan, Bates' alfalfa field can no longer be watered, and he has to give his horses and cattle water from a municipal line, which means his cows

are getting skinny.

“Each day that they’re in this pen, even though we’ve got water, they’re still losing weight,” said Bates. “It’s costing me.”

Earlier this week, the Navajo Nation announced it was planning lawsuits against the EPA and owners of the Gold King Mine. And the City of Durango and La Plata County in Colorado, where the spill originated, have declared states of emergency with New Mexico and the Navajo Nation following suit.

“This is a tragic and unfortunate incident, and the EPA is taking responsibility to ensure that it is cleaned up,” said EPA administrator Gina McCarthy in a statement earlier today. “The most important thing throughout this is ensuring the health and safety of the residents and visitors near the river. We are committed to helping the people throughout the Four Corners Regions who rely on these rivers for their drinking water, irrigation water and recreation.”

In Farmington, New Mexico, officials are encouraging residents to bring water samples from home to be tested. Ryan Flynn is secretary of the New Mexico Environment Department. He says so far it doesn’t look like the spill has affected local drinking wells.

“Short term I think we’re going to just focus on the chemistry in the river and how that’s interacting with the contaminants, how the river is influencing groundwater, and that will give us enough to really get people using water again or knowing when it will be safe to do so by treating it,” said Flynn. “Long term, it’s too early to tell.”

Meanwhile, the Gold King Mine continues to leach contaminants into the Animas River, which means Navajo farmers downstream like Bates are stuck waiting on guidance from officials on whether the water is safe to use or not.

“There are farmers all the way down this valley that are impacted,” said Bates.

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Associated Press (via Las Vegas Sun)

<http://lasvegassun.com/news/2015/aug/12/fearing-stigma-colorado-contested-superfund-status/>

Fearing stigma, Colorado contested Superfund status for mine

Ivan Moreno and Ellen Knickmeyer
August 12, 2AM

DENVER —

The U.S. Environmental Protection Agency took full responsibility Tuesday for the mine waste spoiling rivers downstream from Silverton, Colo., but people who live near the idled and leaking Gold King mine say local authorities and mining companies spent decades spurning federal cleanup help.

They feared the stigma of a Superfund label, which delivers federal money up-front for extensive cleanups. They worried that corporations would kill a hoped-for revival in the area's mining industry rather than get stuck with cleanup costs. And some haven't trusted the federal government, townspeople say.

The EPA pushed anyway, for nearly 25 years, to apply its Superfund program to the Gold King mine, which has been leaching a smaller stream of arsenic, lead and other wildlife-killing heavy metals into Cement Creek. That water runs into the Animas and San Juan rivers before reaching Lake Powell and the lower Colorado River, a basin serving five states, including Nevada, Mexico and several sovereign Native American nations.

As millions of gallons of spilled sludge spread hundreds of miles downstream Tuesday, officials from the century-old mining towns of southwest Colorado defended their opposition to federal help.

Mining companies don't like to invest in Superfund sites because they're heavily scrutinized and more costly to develop, said Ernest Kuhlman, a San Juan County commissioner and

Silverton's former mayor.

Also, the stigma could have scared away rafters and anglers who helped bring \$19 billion in tourism money to Colorado last year.

"How many people want to go to a Superfund site for tourism or recreation?" Kuhlman asked.

Now they've got a bigger problem: Last Wednesday, a small EPA-supervised work crew inspecting the Gold King mine accidentally knocked a hole in a waste pit, releasing at least three million gallons of acidic liquid laden with toxic heavy metals. Dissolved iron in the waste plume — familiar to miners as "yellow boy" — turned the area's scenic waterways a shocking orange hue.

The EPA ordered stretches of the rivers closed for drinking water, recreation and other uses at least through Monday. Colorado and New Mexico made disaster declarations. The Navajo Nation declared an emergency, saying that at least 16,000 of its people, 30,000 acres of crops and thousands of livestock survive on water that's now off-limits.

In Washington, EPA administrator Gina McCarthy took full responsibility, saying "I am absolutely, deeply sorry that this ever happened." She planned to tour Farmington and Durango, two of the cities most affected by the orange sludge.

Since 1980, Superfund designation has helped remove or contain hazardous waste posing immediate dangers to human health. New York's Love Canal, where hundreds of families had to be evacuated from homes built over a former chemical dump, spurred its creation, and many still associate that scandal with the program.

Asked if Superfund designation could have helped to prevent this accident, regional EPA administrator Shaun McGrath indicated it could have.

"Being listed under a national-priorities list ... makes available to a cleanup effort resources under the Superfund, which are significant resources," McGrath said. "And it does allow for potentially more extensive cleanup."

Fears that a Superfund site nearby will sink property values and chase away investment are common in America; numerous studies have explored this topic.

But "normally, people want it to be cleaned, so if that's the best way of moving through it, generally communities want" Superfund designation, said Katherine Kiel, who teaches at the College of the Holy Cross in Worcester, Mass.

As many as 500,000 mines have been abandoned in the U.S., legacies of the booms and busts that follow swings in metals prices, according to the U.S. Bureau of Land Management. Many date to the late 1800s, and have been exposed to the elements for many years, their tunnels filling with snowmelt and rain that leaches underground.

Bill Simon, a coordinator for the Animas River Stakeholders Group, said cleanup negotiations have focused on 33 of the most contaminated mines and 34 mine waste sites, out of an estimated 3,000 in the Animas river basin, but work has been stalled by questions about who will ultimately pay for it.

The biggest Superfund proponents, he said Tuesday, are from downstream communities that fear pollution from mines will harm their economy and want federal help to clean it up as quickly and effectively as possible.

On the other side are people in Silverton who fear reduced property values and a loss of local control to a federal bureaucracy, Simon said, and they're backed by some of the world's biggest mining interests.

In 2011, Canada's Kinross Corporation, which owns the area's Sunnyside mine, offered \$6.5 million to help clean mining waste from the upper Animas River, while vowing to

"vigorously contest" any effort to make Sunnyside liable for Superfund-related cleanup costs.

Sunnyside has yet to spend the money, but continues to support a "collaborative approach" among various parties, Sunnyside reclamation director Kevin Roach said in an email Tuesday.

Mark Esper, editor of the Silverton Standard & the Miner's newspaper, hopes the spill will soften suspicions of federal involvement.

"One of the biggest concerns you hear about Superfund is, "Oh, the bad publicity we get," Esper said. "Well, it can't get much worse than this right now, frankly."

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Denver Post

http://www.denverpost.com/dnc/ci_28624900/willoughby-animas-spill-may-lead-more-attention-mining

Willoughby: Animas spill may lead to more attention on mining

Scott Willoughby

August 11, 9:44PM

There is good news — believe it or not — bad news and, most significant, revealing news seeping out along with the acidic heavy metals flooding into the Animas River basin this week.

The bad news, as most are by now aware, comes in the form of the sludgy orange cocktail of arsenic, lead, copper, cadmium and other heavy metals that poured into Cement Creek and the Animas on Thursday after an EPA crew accidentally triggered a blowout of the Gold King Mine near Silverton. An estimated 3 million gallons of mine wastewater flooded

into the river and took the water well beyond the state water quality levels for several heavy metals, especially lead, which measured at an astounding 5,720 parts per billion (ppb) shortly after the spill. The acceptable threshold for the state's domestic water quality standard is 50 ppb.

Comparably elevated levels of cadmium, arsenic, iron, copper and manganese were recorded at a location 15 miles north of Durango a day after the Gold King blowout, although the levels of acidity had been severely lowered and contamination is expected to be further diluted over time.

And so begins the upbeat element of the report out of southwest Colorado.

Better still is that the initial impacts to fish swimming in the Animas near Durango do not yet appear to be severely detrimental. Only one of 108 caged fish placed in the river by Colorado Parks and Wildlife officials died during the first 24 hours in the mustard-yellow water. Monitoring of macro-invertebrates in the river has been similarly positive, although that could clearly change as sediment settles on the riverbed.

Colorado Parks and Wildlife broadcast video Tuesday of fingerling rainbow trout introduced in the Animas River just before the big plume of contaminated water hit Thursday. Five days after the spill, the fish "appear to be in pretty good shape," a CPW biologist said. The fish will now be submitted for analysis of heavy metal accumulation as on-site teams assess impacts of heavy metals on the river over the next several weeks if not months.

Although the long-term repercussions remain to be determined, the greater impact may prove to be that of perceptions.

Local fly-fishing shops already have reported being inundated with phone calls from people considering canceling their fishing trips to Durango, unaware of multiple other available fishing options in the region.

This is far from the first time heavy metals have spilled into the Animas River. Despite its Gold Medal trout fishing designation in the heart of Durango, the fishery has suffered for decades due to mine seepage, and annual stocking is necessary to sustain fish populations.

The Gold King disaster merely serves as the most recent and most dramatic blow. And perhaps, brought to light, the revealed reality of a mining industry that so often fails to take responsibility for enduring pollution problems near Silverton and across Colorado may ultimately come to something good.

The perception had been that everything was fine along the Animas, until it turned orange. Maybe this mustard-stained revelation can lead to some genuine action toward a long-term remedy for a long-standing issue. That's the kind of news we all could use.

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Dispatch Times

<http://www.dispatchtimes.com/colorado-governor-goes-to-see-mine-spill-impact/42857/>

Colorado governor goes to see mine spill impact

Newsmedia

August 12

Environmental Protection Agency Administrator Gina McCarthy speaks at a Resources for the Future policy leadership forum, Tuesday, August 11, 2015, in Washington.

“For nearly a week, a torrent of toxic sludge – the color of hot mustard and rife with poisonous metals – has been flowing through Colorado, Utah and New Mexico”.

EPA officials said the shockingly bright plume has already dissipated and that the leading edge of the contamination can not be seen in the downstream stretches of the San Juan River or Lake Powell. Officials acknowledged that the spill was triggered while an EPA-supervised crew was working near Silverton, Colorado, in the southwest part of the state.

McCarthy also mentioned that she expected there to be lawsuits against the EPA, and Begaye said in a news release Sunday that he planned to take legal action against the

agency.

The former geologist says that if there's a "silver lining" to the disaster, it will be a new relationship between the state and the EPA to solve the problem. While the Phoenix area uses Colorado River water, officials believe there is little to worry about.

Filfred said Tuesday in Utah that he doesn't know how long the reservation could truck in water and that farmers depend on the San Juan River to irrigate about 30,000 acres of crops.

Thomson Reuters Yellow waste water that had been held behind a barrier near an abandoned mine in the Animas River in Durango, Colorado.

Filfred said the tribe is frustrated by a lack of information from the federal government about whether the pollutants are harmful to humans and livestock.

Dissolved iron in the waste turned the long plume an alarming orange-yellow a look familiar to old-time miners who call it "yellow boy" so "the water appears worse aesthetically than it actually is, in terms of health", said Ron Cohen, a civil and environmental engineering professor at the Colorado School of Mines.

McCarthy and state and federal EPA officials have been under intense pressure and harsh criticism since last week's spill, caused by EPA contractors inspecting the Gold King Mine, which was abandoned in the 1920s.

New Mexico Gov. Susana Martinez, however, said she would not take anything off the table and that the EPA should be held to the same standards as industry.

"Our commitment is to get this right and make sure we are protecting public health". The team inadvertently released an estimated 3 million gallons of water laden with heavy metals and contaminants into a creek that flows into a river above Durango, Colo. Boaters and

fishing groups have been told to avoid affected stretches of the Animas and San Juan rivers, which are usually crowded with rafters and anglers in a normal summer. It took about 24 hours to first notify some downstream communities of the accident and the agency originally underestimated the volume of the spill.

Heavy metals from Gold King and other defunct mines in Colorado have been leaching out and killing fish and other species for decades as rain and snowmelt spills from mining operations left abandoned and exposed.

The best course for the EPA would be to leave the metals where they settle, he said, noting that next spring's mountain snowmelt would help dilute the contaminants further and flush them downstream.

Stretches of the Animas River and the San Juan River it flows into have also been declared disaster areas in New Mexico.

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The Hill

<http://thehill.com/policy/energy-environment/250915-colorado-rivers-pollution-levels-fall-after-spill>

Colorado river's pollution levels fall after spill

Timothy Cama

August 12, 9:45AM

Colorado state officials said pollution appears to have cleared from the Animas River after the Environmental Protection Agency (EPA) caused a massive mine waste spill.

Gov. John Hickenlooper (D) and Larry Wolk, executive director of the Colorado Department of Public Health and Environment, said Tuesday that their latest sampling show that the river is back to the pollution levels it had before the spill of 3 million gallons of heavy metals last week, the Durango Herald reported.

"Isn't that amazing? That's much better than what I would have hoped for," Hickenlooper said in Durango, according to the Herald.

"The indications are that the threat to the human health is returning back to pre-event levels, if not already there now," he continued.

Wolk said his agency does not believe there is any risk to human health.

The test results mean that officials could potentially reopen the river to recreation, fishing and drinking water intakes before the Aug. 17 target that was initially planned.

The EPA, meanwhile, said it was encouraged by the new findings, but wanted to verify the results itself before giving its blessing.

The spill caused the river to turn bright orange, as well as shining a spotlight of attention and embarrassment on the EPA.

EPA Administrator Gina McCarthy was due Wednesday to visit Durango and Farmington, N.M., which is downstream.

She and other officials have repeatedly apologized for the spill, which was caused accidentally when EPA contractors moved soil that was holding back a tailings pond from the gold mine that was abandoned decades ago.

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Reuters

<http://www.reuters.com/article/2015/08/12/usa-colorado-spill-idUSL1N10N02Y20150812>

UPDATE 2-Restrictions to remain for rivers hardest hit by Colorado mine waste spill

Steve Gorman

August 11, 10PM

Aug 11 (Reuters) - Two rivers in Colorado and New Mexico hit hardest by toxic waste spilled from a defunct gold mine will remain closed to drinking water and irrigation intakes for at least another week, but test samples show a gradual ebbing of contamination, environmental officials said on Tuesday.

The San Juan River and its northern tributary, the Animas River, have been fouled by the release of more than 3 million gallons (11.3 million liters) of acid mine drainage inadvertently triggered by a team of Environmental Protection Agency workers last Wednesday.

The discharge has continued to flow at the rate of about 500 gallons (1,900 liters) a minute from the site of the century-old Gold King Mine, near the town of Silverton in southwestern Colorado, into a stream below called Cement Creek.

From there, the wastewater has washed into the Animas River and into the San Juan River in northwestern New Mexico.

Some residents who live downstream from the mine and draw their drinking supplies from private wells have reported water discoloration, but there has been no immediate evidence of harm to humans, livestock or wildlife, according to EPA officials.

Still, residents were advised to avoid drinking or bathing in well water, and the government was supplying water where needed. Two Colorado municipalities, including Durango, and

the New Mexico towns of Aztec and Farmington have shut off their river intakes.

The bright orange contamination plume, containing heavy metals such as arsenic, mercury and lead, has dissipated through dilution as the discharge spreads downstream, with its leading edge no longer visible from aerial surveys, the EPA said "As it moves on, we are seeing a downward trajectory toward pre-event conditions," EPA chief Gina McCarthy said at a clean-energy event in Washington.

The Animas River in Durango, about 50 miles (80 km) south of the spill, had turned from orange to bright lime green by Sunday, and was a darker shade of blue-green by Tuesday, a sign that pollutants were gradually clearing, at least near the surface, said Sinjin Eberle, a spokesman for the conservation group American Rivers.

But experts said a long-term concern was the deposit of heavy metals from the spill that had settled into river sediments, where they can be churned up and unleash a new wave of pollution when storms hit or rivers run at flood stage.

POSSIBLE LEGAL ACTION AGAINST EPA

EPA officials said the Animas and San Juan rivers would remain closed until at least next Monday to such uses as drinking, irrigation, fishing and recreation as experts try to gauge safety risks posed by the spill.

Wastewater still escaping from the mine site was being diverted into hastily built settling ponds where the effluent is treated before it empties into Cement Creek, sharply reducing its acidity and metal levels, the EPA said.

Water samples taken from the upper Animas as the main plume of contamination arrived days ago showed concentrations of copper, zinc and cadmium as high as 100 times levels considered safe for fish and aquatic insects, said William Clements, an eco-toxicologist at Colorado State University who reviewed preliminary EPA data.

He said the peak cadmium levels were roughly 10 times higher than what would be regarded as safe for humans, while arsenic - especially toxic to people - spiked at 1,000 parts per billion, he said. That is 100 times the maximum contaminant level for arsenic set by the EPA for drinking water.

Clements said the readings offered just a snapshot of contamination in a place relatively close to the spill's origin at a point when the effect was most pronounced. "They really do fluctuate quite a bit with time," he said.

New Mexico Governor Susana Martinez and Colorado Governor John Hickenlooper both declared states of emergency on Monday, freeing up additional money for disaster response. Martinez also said she was directing her administration to "be prepared to take legal action against the EPA."

Hickenlooper visited a trout hatchery on Tuesday near Durango, where wildlife officials had caged more than 100 juvenile fish at several locations along the Animas to monitor their health. Only one had died so far, officials said.

Utah State University ecologist Charles Hawkins said the health effects on fish could take weeks or months to become lethal, or might translate into reproductive damage. "It would have to be incredibly toxic to kill them immediately," he said.

The Navajo Nation has also been affected. Tribal communities along the San Juan, which crosses the sprawling reservation through southeastern Utah before flowing to Lake Powell, rely on the river for fishing, irrigation and watering of livestock.

"We intend to make sure the Navajo Nation recovers every dollar it spends cleaning up this mess and every dollar it loses as a result of injuries to our precious Navajo natural resources," tribal President Russell Begaye said.

From: Ludwigsen, Emily
Sent: Wednesday, August 12, 2015 9:49 AM
Subject: CO Mine Spill Clips - 8/12

Associated Press (via Kristv)

<http://www.kristv.com/story/29767627/toxic-spill-in-colorado-river-cleared-up-long-term-impact-uncertain>

Toxic spill in Colorado River cleared up, long-term impact uncertain

Knickmeyer

August 12, 8:15AM

ALBUQUERQUE, N.M. (AP) - Russell Begaye stared into a hole in the side of a Colorado mountain, watching as yellow water contaminated with heavy metals poured out and raced down a slope toward a creek that feeds rivers critical to survival on the nation's largest Native American reservation and in other parts of the Southwest.

At the Gold King Mine, Begaye, president of the Navajo Nation, couldn't help but see the concerned faces of his people - the farmers who no longer had water for corn crops and the ranchers who had to scramble to get their cattle, sheep and goats away from the polluted San Juan River.

"We were told that the water was clearing up and getting back to normal," he said. "This is what EPA was telling us. We wanted to go up there as close as we could to the source. We wanted our people to see the water is still yellow."

Begaye and a small contingent of Navajo officials worked their way unannounced past barriers and up the mountain over the weekend to get a closer look at the mine blowout that federal officials said sent more than 3 million gallons of water laden with lead, arsenic and other metals down the Animas River and into the San Juan River.

The 100-mile plume has since traveled through parts of Colorado, New Mexico and Utah on the way to Lake Powell, a key source of water for the Southwest.

All along the way, signs are posted warning people to stay out of the water. Farmers have stopped irrigating and communities have closed water intake systems. Bottled water on the Navajo Nation is becoming scarce.

Begaye said his tribe is bearing the brunt of the massive spill that was accidentally unleashed by EPA workers inspecting the long-idled Gold King mine near Silverton, Colorado, on Aug. 5. Two-thirds of the San Juan River crosses Navajo land before reaching Lake Powell.

"This is a huge issue," Begaye said. "This river, the San Juan, is our lifeline, not only in a spiritual sense but also it's an economic base that sustains the people that live along the river.

"When EPA is saying to me it's going to take decades to clean this up, that is how long uncertainty will exist as we drink the water, as we farm the land, as we put our livestock out there near the river," he said. "That is just, to me, a disaster of a huge proportion."

Frustration is mounting throughout the Four Corners region among officials and residents who say the EPA has moved too slowly and hasn't been forthcoming about the dangers of the spill. The Navajo Nation feels even more slighted given its status as a federally recognized tribe and sovereign nation.

Begaye said he has yet to receive a call from President Barack Obama. "It seems like the Obama administration just closed their doors and disappeared," he said.

On Wednesday, EPA Administrator Gina McCarthy planned to tour sites in New Mexico and Colorado affected by the spill. She called it a tragic and unfortunate incident, saying the EPA was taking responsibility to ensure the mess was cleaned up.

"I am absolutely, deeply sorry that this ever happened," she said Tuesday in Washington.

The EPA has said the current flows are too fast for the contaminants to pose an immediate health threat, and that the heavy metals will likely be diluted over time so they don't pose a longer-term threat, either.

Tests show some of the metals have settled to the bottom of the rivers and would dissolve only if conditions became acidic, which experts say isn't likely.

Fish testing was going on Tuesday in the Animas River near Durango, Colorado, with biologists working to determine the leak's impact on fish.

"We didn't have a big fish kill in the river," said Jim White, an aquatic biologist with Colorado Parks and Wildlife. "The one thing we don't know is sort of long term impacts to the aquatic community out here in general."

Colorado Gov. John Hickenlooper visited a contaminated stretch of the Animas and said he hopes a "silver lining" to the disaster will be a more aggressive state and federal effort to deal with mining's "legacy of pollution" across the West.

On the Navajo Nation, some 30,000 acres of crops are in danger without irrigation. Farmers also worry about contaminating their irrigation ditches once the gates are reopened, and ranchers are looking for assurances that livestock won't be exposed to contaminants each time they wade into the river and kick up sediment while getting a drink.

Navajo farmers are in the middle of alfalfa season and without rain, tribal officials say they will be in trouble. They have been flooding the airwaves and social media with Navajo-language public service announcements to keep people updated.

Federal officials have said they are working to review and analyze data gathered from samples taken along the two rivers.

McCarthy said Tuesday that initial results show high levels of contaminants in the water have been diminishing as the plume moves downstream. Workers have built four ponds at the mine site to capture and treat additional discharges, she said.

Heavy metals from Gold King and other defunct mines in Colorado have been leaching out and killing fish and other species for decades as rain and snowmelt spills from abandoned, exposed sites.

The EPA has considered making part of the Animas River in Colorado a Superfund site for a quarter-century.

The designation would have provided more resources for a cleanup, but some people in Colorado opposed the status, fearing the stigma and federal strings attached, so the EPA agreed to allow local officials to lead cleanup efforts instead.

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CBS

<http://www.cbsnews.com/news/colorado-river-mine-spill-site-inspected-epa-administrator-other-officials/>

U.S., state officials to visit tainted Colorado river

CBS News

August 12, 6:54 AM

Several officials will be visiting Colorado and New Mexico Wednesday to inspect the damage from the Gold King Mine spill.

The head of the EPA, Gina McCarthy, as well as attorneys general from Colorado, New Mexico and Utah all plan to personally inspect the river, reports CBS News correspondent Mireya Villarreal.

EPA takes blame for Colorado mine waste spill

Colorado Governor John Hickenlooper visited a contaminated stretch of the Animas River Tuesday and admitted that, while he's disappointed with the EPA, he's focused on the cleanup.

"Everyone's angry. I was angry. That said, our primary role right now is, that's behind us, and how are we going to move forward?" Hickenlooper said.

Even though the water looks normal now, over the past week, a plume of pollution with metals including arsenic and lead has marched at least 100 miles downstream.

In Washington D.C. Tuesday, EPA administrator McCarthy apologized for the spill.

"It pains me to no end see this happening, but we're working tirelessly to respond and have committed to a full review of exactly what happened," she said.

Preliminary tests show the water quality is returning to where it was in Durango, Colorado, before the accident. Still, the river will need to be monitored for years to come.

The spill is affecting people like Charlie Noone, who makes a living off the waters.

"We've had some cancellations, for sure. It's been tough, because a lot of people do come to Durango to fish the Animas," the fishing guide said. "It's a beautiful river. Not right now, but usually, it's really beautiful."

With businesses and families waiting for the all-clear, Hickenlooper said he hopes the county sheriff will be able to reopen the river as soon it's safe.

"I want to have that information in his hands the moment we have it -- in minutes, not in hours, not in days. The moment we have it," he said.

Hickenlooper said this spill should serve as a turning point for the EPA and how it handles mine-cleanups.

In Colorado alone, there are an estimated 23,000 abandoned mines.

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LA Times

<http://www.latimes.com/nation/la-na-colorado-river-spill-20150811-story.html>

States downstream from contaminated river upset that EPA didn't alert them

John M. Glionna and Matt Pearce

August 11, 7:13 PM

As the Environmental Protection Agency continued to monitor 3 million gallons of mine waste released into Colorado's Animas River, residents in two states downstream decried the federal agency Tuesday, saying it failed to alert them to mustard-colored sludge headed their way.

Officials for New Mexico's San Juan County Office of Emergency Management said they learned of the oncoming rush of wastewater laden with lead, arsenic and other heavy metals not from the EPA, but in a newspaper in nearby Durango, Colo.

In Page, Ariz., Mayor Bill Diak said that when he contacted EPA officials to attend an emergency community meeting Monday, the agency said no one was available. Agency officials responded only after Diak called his congresswoman in Washington, he said.

"We told her, 'Hey, this really is a concern to us and the EPA doesn't have time to talk to us,'" Diak said. "They dropped the ball — using the media to get the word out."

On Tuesday, EPA Administrator Gina McCarthy said her agency took full responsibility for the spill caused by federal and contract workers cleaning up the defunct Gold King Mine above the town of Silverton, Colo. McCarthy, who planned to visit affected areas Wednesday, said the spill “pains me to no end. I am absolutely, deeply sorry this ever happened.”

By late Tuesday, the leading edge of the spill was eight miles west of Farmington, N.M., more than 100 miles from the disaster site. Parts of the Animas and San Juan rivers have been declared disaster areas, as governors from Colorado and New Mexico conducted visits to communities that have shut off outtake valves from the polluted waterways.

In a news conference held at an agency command center in Durango, EPA officials said workers were treating the 500 to 700 gallons of tainted water still leaking from the Gold King Mine.

Though the EPA said stretches of the Animas south of the spill were clearing, residents described orange-colored silt on the river bottom and shoreline in many places. The agency will continue to monitor the silt “for years to come,” EPA officials said, noting that sediment would be stirred up by rainfall or spring runoff.

The plume was expected to reach Lake Powell this week, but the pollutants were not expected to threaten the lake or Colorado River-fed drinking water for Western states including California.

Justyn Liff, a Colorado spokeswoman for the U.S. Bureau of Reclamation, said the 3-million-gallon spill was about the size of 4 1/2 Olympic-sized pools. Lake Powell, she said, contained 4.2 trillion gallons of water, comparable to 6.4 million Olympic-sized pools.

Mic Stewart, director of water quality for the Metropolitan Water District of Southern California, agreed that the contamination would take years to hit the region, if ever.

"The event [happened] about 850 miles upstream of us, so we have a couple factors in our favor," he said. "It's a long distance away."

In Colorado, the state parks and wildlife department continued to monitor fish placed in the Animas River near Durango to gauge health effects of the sludge. The agency placed scores of rainbow trout fingerlings from a local hatchery into the river at three locations.

"So far, they're surviving," said spokesman Matt Robbins. "As for the wildlife that might be drinking this water, we don't know."

Communities that rely on the Animas and the San Juan for water say the spill has upset their way of life.

Michele Truby-Tillen, a spokeswoman for the San Juan County Office of Emergency Management in New Mexico, said people who drew their water directly from the Animas River had been coming into nearby Farmington to take showers. Officials have blocked farmers from irrigating crops with river water and have ordered thousands of well owners to have their water tested.

"People ask, 'Is this going to affect our health and welfare for the next 10 years?' All we say is to take this one day at a time. The long term will have to wait," she said.

She criticized the EPA for not giving residents warning that the flood of polluted water was coming their way. "If they had done that, farmers and well-users could have drawn out as much clean water as they could before this set upon us," she said. "But that didn't happen."

The attorneys general of New Mexico, Colorado and Utah plan to visit the spill site on Wednesday and discuss potential "legal remedies," according to the New Mexico attorney general's office.

"I'm not taking anything off of the table. Right now we have people preparing for a lawsuit,

if that is what we need to do,” Republican New Mexico Gov. Susana Martinez said in a Tuesday appearance on Fox News.

Colorado Gov. John Hickenlooper, a Democrat, also criticized the EPA in a televised news conference in Durango, albeit with a softer tone.

“When we have an incident like this, it is, in every sense, unacceptable,” he said. But Hickenlooper, while promising accountability, declined to condemn the agency, saying the EPA’s intentions — to treat the wastewater in the mine — were good.

Jared Blumenfeld, an EPA spokesman in San Francisco, said the agency was investigating why it took 24 hours for officials to notify governors in affected states of the spill.

“There are 300 miles of river between the incident and Lake Powell. On fast-moving issues we focus on the most affected areas first,” he said. “But today we are coordinating better than we did at first.”

In Page in northern Arizona, residents wait with a sense of dread for the oncoming pollution.

On Monday, Mayor Diak held an unusual meeting attended by 150 residents, many of whom questioned EPA officials who phoned into the event.

“People were concerned over their drinking water,” Diak said of the town of 9,000 residents. “The doomsday people were predicting the price of water to rise.”

But Diak hoped Lake Powell would hold its own.

“Remember, this is a big lake with 1,900 miles of coastline, more than the entire West Coast of the U.S.,” he said. “Bottom line, this is like adding one drop of water with red dye

into a pool of 15,000 gallons. So just try and find the red dye.”

NBC

<http://www.nbcnews.com/news/us-news/week-after-toxic-river-spill-impact-west-remains-unclear-n407896>

A Week After Toxic River Spill in Colorado, Environmental Impact Remains Unclear

Jon Schuppe

August 11, 6:35PM

Last Wednesday, Environmental Protection Agency workers cleaning up a defunct gold mine in southwestern Colorado mistakenly unleashed a torrent of toxic wastewater, sending the chemical-laden plume into the Animas River, turning it bright yellow and forcing officials to close it off.

About three millions gallons of the polluted sludge churned into the river, moving downstream to the town of Durango, on to New Mexico and toward Lake Powell in Utah, raising all sorts of questions about the immediate and long-term impact on the drinking water, wildlife and the local economy.

This is what is known so far:

What was in the toxic wastewater?

The plume contained concentrated levels of heavy metals, including lead, iron, zinc and manganese, as well as arsenic. It was the iron that turned the river the color of mustard.

How polluted is the river now?

State and federal officials say that the spike of toxins lasted about eight hours. Since then, the EPA has built four collection ponds at the mine site, where it is treating the water in order to reduce acidity levels and remove dissolved metals. Officials say the pollutants have now dissipated to the point that the river near the spill point is returning to normal water-quality levels — and is regaining its greenish-blue hue. But the contaminants will eventually settle in the river bed, and could be kicked back up during rainstorms.

How long will the pollution stick around?

Jeff Curtis, a University of British Columbia scientist and water quality expert, said he expected two waves of toxins to move downstream from the spill. The first wave comprises water-soluble pollutants, including arsenic and cadmium, freely flowing with the river's current. The second wave of less soluble materials, including lead, will settle in river basin sediment and be churned up by later rainstorms.

That means that the full impact of the spill will take years, perhaps decades to unfold, as the toxins continue to move through the ecosystem. Fish will bear the brunt of the contamination, poisons slowly accumulating in their bodies.

The effect on humans will take much longer to measure, Curtis said.

What's been the impact on drinking water?

Officials in Durango, the first town downstream from the spill, moved quickly to shut off its intake valve from the Animas. Tap water there is considered safe to drink, but because the town is now relying on the Florida River for its supply, officials are urging people to conserve. Residents and farmers who rely on wells were switched to alternative sources.

Seven water systems in Colorado and New Mexico may also be affected, as the river carries the contaminants closer to the Colorado River, which feeds much of the West.

What about wildlife?

Officials are still trying to figure out how the spill has affected animals and fish. Tests have not turned up any widespread deaths of fish, or of insects that the fish eat.

When will the Animas River reopen?

The EPA said it did not anticipate making any decision about making the river available for public use until at least Aug. 17.

Has the leak at the mine itself been stopped?

Contaminated runoff is still flowing from the abandoned Gold King Mine, the Durango Herald newspaper reported.

How many of these mines are out there?

The Gold King Mine is one of thousands of mines that drove the local economy until the early-20th century. All are now closed. Some are now tourist attractions. All maintain a toxic legacy, as groundwater flows through the old tunnels and picks up pollutants.

How did the spill happen?

Locals have been debating how to stem the flow of hazardous chemicals from the mines, but resisted allowing the EPA to declare the mines a federal Superfund site, fearing the impact on the economy. Instead, the EPA decided on a softer approach: go into the worst of the abandoned mines, measure the level of pollution, treat the sludge and figure out whether

more remediation was necessary. That's what an EPA crew was doing at Gold King Mine on Aug. 5, when it accidentally broke through a mound of material blocking the tunnel, letting loose the toxic plume.

Who's paying for the cleanup?

The details are far from clear. But it's assumed that the EPA will end up the focus of millions of dollars in claims. In the short term, federal and state officials are shouldering the immediate costs of responding to the spill.

Reuters

<http://www.reuters.com/article/2015/08/12/usa-colorado-spill-idUSL1N10M1JV20150812>

CORRECTED-UPDATE 1-Restrictions to remain for rivers hardest hit by Colorado mine waste spill

Steve Gorman

August 11, 9:36 PM

Aug 11 (Reuters) - New Mexico officials have joined Colorado in declaring an emergency due to toxic wastewater spewing from an abandoned gold mine, a spill that prompted authorities to close two rivers to drinking water and irrigation intakes for at least another week.

The San Juan River and its northern tributary, the Animas River, have been fouled by the release of more than 3 million gallons (11.3 million liters) of acid mine drainage inadvertently triggered by a team of Environmental Protection Agency workers last Wednesday.

The discharge has continued to flow at the rate of about 500 gallons (1,900 liters) a minute from the site of the century-old Gold King Mine, near the town of Silverton in southwestern Colorado, into a stream below called Cement Creek.

From there, the wastewater has washed into the Animas River and into the San Juan River in northwestern New Mexico.

The bright orange contamination plume, containing heavy metals such as arsenic, mercury and lead, has dissipated through dilution as it spreads downstream, with its leading edge no longer visible from aerial surveys, the EPA said.

"From initial sampling, as the plume has advanced, we are seeing elevated levels (of contaminants), but as it moves on we are seeing a downward trajectory toward pre-event conditions," EPA chief Gina McCarthy said at a clean-energy event in Washington.

The Animas River in Durango, Colorado, about 50 miles (80 km) south of the spill, had turned bright, lime green by Sunday, and was a darker shade of blue-green by Tuesday, a sign that pollutants were gradually clearing, at least near the surface, said Sinjin Eberle, a spokesman for the conservation group American Rivers.

But experts said a long-term concern was the deposit of heavy metals from the spill that had settled into river sediments, where they can be churned up and unleash a new wave of pollution when storms hit or rivers run at flood stage.

An unspecified number of residents who live downstream from the mine and draw their drinking supplies from private wells have reported water discoloration, but there has been no immediate evidence of harm to humans, livestock or wildlife, according to EPA officials.

Still, residents have been advised to avoid drinking or bathing in water drawn from wells in the vicinity, and the government is working to supply water as needed to homes, ranches and farms.

Two Colorado municipalities, including the city of Durango, and the New Mexico towns of Aztec and Farmington have shut off their river intakes, the EPA said.

POSSIBLE LEGAL ACTION AGAINST EPA

EPA officials said the Animas and San Juan rivers would remain closed until at least next Monday to such uses as the supply of drinking and irrigation water, and fishing and recreation as experts try to gauge safety risks posed by the spill.

Wastewater still escaping from the mine site was being diverted into hastily built settling ponds where the effluent is treated before it empties into Cement Creek, sharply reducing its acidity and metal levels, the EPA said.

New Mexico Governor Susana Martinez declared a state of emergency on Monday, freeing up an additional \$750,000 for disaster response, and said she was directing her administration to "be prepared to take legal action against the EPA."

Colorado Governor John Hickenlooper declared his own "state of disaster" emergency on Monday, and vowed to take actions to "make sure this doesn't happen again."

Colorado has more than 4,000 abandoned mines, about 1,100 of them around Silverton, according to American Rivers, which calls those sites "ticking time bombs."

The Navajo Nation has also been affected. Its sprawling reservation is traversed by the San Juan River, which flows through southeastern Utah into Lake Powell.

It was uncertain how far significant contamination from the spill would travel, but EPA officials said on Tuesday the leading edge of the original burst of contamination had moved well beyond Farmington.

